

From owner-qrp-l@netcom.com Fri Jan 27 17:53:13 1995  
Date: Fri, 27 Jan 1995 13:57:55 -0800  
From: faunt@netcom.com (Doug Faunt N6TQS 510-655-8604)  
Message-Id: <199501272157.NAA15797@netcom14.netcom.com>  
Subject: 20M rig for kit-bashing

It strikes me that by kit-bashing the Ten-Tec 6 meter transverter, and some 20M CW/SSB QRP rig, you could come up with a nice little unit.

So, the question is, what 20M QRP rig is suitable?

73, doug

From: jeffo@io.SLC.Unisysgsg.COM (Jeff Okleberry)  
Newsgroups: rec.radio.amateur.misc  
Subject: 6M SSB/CW radios  
Date: 27 Jan 1995 14:14:53 -0600

I'm am looking for manufacturers of 6M radios or 6M radio kits which are SSB/CW capable. I'm interested in something along the lines of a Ramsey FX-50, small, basic, and not too expensive. I want to drag it to the top of mountains on my back. Responses by E-mail would be greatly appreciated since I don't usually read this news group.

Jeff Okleberry, N7QYN

From owner-qrp-l@netcom.com Fri Jan 27 21:47:06 1995  
Message-Id: <9501271945.AA18525@us1rmc.bb.dec.com>  
Date: Fri, 27 Jan 95 14:45:10 EST  
From: Bill Acito 27-Jan-1995 1440 <acito@asdg.enet.dec.com>  
Subject: <didn't bother with a subject>

As a follow-up to my previous message, my issue of '72' arrived today, post-marked the 24th. Talk about timing. :-)  
If there were any issues between the Field Day Issue and now, I guess I have to blame the Post Office.

I have the info to follow-up with QRP-ARCI, too. (Thanks to Stuart K5KVH)

Thanks,

b

KC1GS/qrp

QRP-NE #260

ARRL Life Member

. . . . .  
- I own my own words -

++-++-++-++-++	Digital Equipment Corporation	Bill Acito
d i g i t a l	Digital Semiconductor, Fab 6	
++-++-++-++-++	Hudson, Massachusetts	acito@asdg.enet.dec.com

From owner-qrp-l@netcom.com Fri Jan 27 15:02:57 1995  
From: "RICHARD HIEBER" <SZ0026@daphne.rrze.uni-erlangen.de>  
Date: Fri, 27 Jan 1995 16:18:30 MET  
Subject: <FAQ> Clubs List, main FAQ, sites  
Message-Id: <2EF81333F15@daphne.rrze.uni-erlangen.de>

Hello all,

a few minutes ago I sent the "QRP Clubs List" (V0.95) to the list server. With more than 25kB this was quite a hefty chunk of mail and I am curious to what your reaction will be. Does anyone have problems with mail items that large?

This is the first part of the ongoing FAQ project. From the research that I was doing I was concluding that it's not a good idea to try to incorporate everything into \*one\* FAQ file. Rather you should keep the main file relatively small and give pointers to where to get the special\_interest\_files.

Another such file will be the one that L.B., W4RNL, started working on: about "Periodicals of interest to QRP enthusiasts", perhaps later also comprising books. Chuck, K5FO, is rumoured to have started a comparing table of properties of widely used QRP transceivers. Brian, AF4K, already maintains a Parts & Kits resource list that also should be referenced to in the main FAQ.

So where is the main QRP-L FAQ? I does't exist yet. Yesterday I was looking through the archived traffic on the list from the very beginning to June 1994 (i.e. all what is stored on <ftp.think.com>), looking at every single question mark, trying to find out what the FAQs (frequently asked questions) really are. Will do so also with the stuff stored at <sunsite.unc.edu>. The extracted list of questions will go out, after some preprocessing, to a small group of people that

volunteered to help with the FAQ. I don't like the format of some other FAQs that are nothing but an uncoherent concatenation of questions and answers, so we'll discuss about the form as well as about the contents.

I would like to keep these discussions off the list as long as the FAQ hasn't more 'solidified'. That doesn't mean that any progress will be kept secret :-) ... just don't want to add unnecessarily to the already high volume on the list. It's quite possible, though, that a draft version will be posted to QRP-L one of the next weeks. Anyone that wants to join in the effort, send me mail.

The FAQ suite of files will be in ASCII only, at least in the beginning. We'd need a publicly accessible FTP site where to store these files. I know of three sites where files related to QRP-L are already being stored:

```
<ftp.think.com>          /pub/radio/ham/qrp
<sunsite.unc.edu>        /pub/academic/agriculture/agronomy/ham/QRP
<ftp.cybernetics.net>    /pub/users/ab4el
```

<ftp.think.com> is the oldest one, but who is the maintainer now after Bruce W1TM stopped being list manager? It looks a bit desolate ... The path names at the other sites are not as intuitive, though.

I would like to hear from anybody that has write access at these sites. Other suggestions are also welcome. WWW or gopher access would also be fine, but I am not very familiar with that and don't know what the particular requirements are.

That's all for now. Have a nice weekend and enjoy life!

Vy 73 es 72 de Richard (DL8MFQ @ DB0SIF.DEU.EU) in Erlangen  
alias AA8CP                      G-QRP #7417                      AGCW-DL #2168  
Internet email address:<sz0026@daphne.rrze.uni-erlangen.de>

From owner-qrp-l@netcom.com Fri Jan 27 23:01:53 1995  
Date: Fri, 27 Jan 1995 18:42:34 -0500 (EST)  
From: Wynn C C <wyn@stc06.CTD.ORNL.GOV>  
Subject: <FAQ> Clubs List, main FAQ, sites  
Message-Id: <Pine.OSF.3.91.950127182258.18570B-100000@stc06.CTD.ORNL.GOV>

I for one would prefer not to have 25 Kbyte files showing up periodically in my e-mail. I think many others on this mail list have expressed the same opinion.

Until further developments, I believe the existing ftp

archive sites you listed should get the files fit for posting in archive form , followed by a short note pointing to them here. Steve and Raymond have been very cooperative in the past by accepting the files on their private e-mail, then transferring them to the respective accessible ftp accounts.

Another alternative would be to ship the file to one of the rec.radio.amateur.\* newsgroups then point to it here with a brief announcement, synopsis, etc. Interested parties can then use their newsgroup readers to download the file if desired. For instance your worldwide QRP list could fit appropriately in rec.radio.amateur.misc. Others might fit in rec.radio.amateur.equipment or rec.radio.amateur.homebrew.

72/73  
Clay N4AOX  
wyn@ornl.gov

From owner-qrp-1@netcom.com Fri Jan 27 16:46:09 1995  
Message-Id: <9501271626.AA10416@garnet.inel.gov>  
Date: Fri, 27 Jan 1995 09:27:15 -0700  
From: LVE1@inel.gov (Larry East)  
Subject: Another source of parts

Another source of parts is the National Parts Division of Tandy Electronics (yes, the same outfit that owns Radio Shack!) -- they have a mail order business with NO minimum order amount. I suspect that this is where RS goes for special parts orders -- with a big mark-up! I have a 200+ page catalog from them with all sorts of goodies -- its about 4 years old so prices may not be current. I called for an updated one and was told that "it isn't available yet".

I have used them on a few occasions for transistors, ICs, connectors etc., and their service is good and prices are competitive (certainly better than the local electronics store that wanted \$15 for a quad op amp that looked like it had been on the shelf for at least 10 years... got it from Tandy for about \$3). Their transistors and ICs have NTE type numbers, so you need access to a cross reference (or maybe they will do the look-up for you -- not sure).

They are located in Ft. Worth, TX and can be reached at 800-322-3690.

NOTE: I have no interest in Tandy Electronics or Radio Shack; just passing this along for your info.

72 --

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"Any opinions expressed herein are my own and probably do not agree with those of my employer, the U.S. Government or my spouse"

--... ..--

Larry V. East (W1HUE)

Idaho Falls, ID

e-mail: LVE1@inel.gov

Packet: W1HUE@WT7B.ID.USA.NOAM

work: (208) 533-4005 home: (208) 529-2162

From owner-qrp-1@netcom.com Fri Jan 27 19:16:47 1995

Message-Id: <m0rXxlr-0002SoC@persoft.persoft.com>

Date: Fri, 27 Jan 1995 14:58:33 -0600

From: jason@persoft.com (Jason F. Penn)

Subject: Cheap Headset Boom Mic Source

I got a catalog in today's mail from Surplus Software Incorporated.

Besides software they have some amplified speakers and sound boards for PCs. Of potential interest to list subscribers is the "Labtec C-15 Headset with Microphone", SKU-LTC15 for \$4.95. Whattadeal... I ordered a pair today. They are a mono, single-sided headphone with a slender microphone-on-a-tube like "Judy Time-Life Operator" wears. Terminated in mono 3.5mm plugs. Unknown cord length.

Just a potentially satisfied customer, your mileage may vary, void where prohibited, etc., etc...

Phone for Surplus Software: 1-800-753-7877, or 503-386-1375, fax 503-386-4227.

73 de Jason, N9RPT

P.S. I also ordered a "AudioPort by MediaVision" for \$40. Basically a Sound Blaster-like playback/record device that interfaces via the PC parallel printer port. 8-bit samples at rates up to 22kHz. Some FM synthesis stuff, too.

Hey Chuck! Do you have a PC compatible parallel port on your keyer? :-)  
Your keyer could decode morse when not sending and "speak" via this gizmo, hi.

--

Jason F. Penn N9RPT | Persoft, Inc. | jason@persoft.com  
Whenever I want to find something, it's always in the last place I look.

From owner-qrp-1@netcom.com Fri Jan 27 20:11:21 1995  
Date: Fri, 27 Jan 1995 14:11:18 -0800  
From: Roger.Pease@Eng.Sun.COM (Roger Pease)  
Message-Id: <9501272211.AA05569@immigrant.Eng.Sun.COM>  
Subject: Curtis 8044 App notes

Anybody NOT able to ftp the 8044.ps file from  
ftp.sgi.com?

If you send me e-mail I will e-mail the file to  
you BUT you had better be on a Unix box or at  
least be able run uncompress, uudecode and bourne  
shell or be prepared to do a \*lot\* of manual editing.

8044.p will be compressed and then uuencoded and  
then chopped into 10 e-mail messages of about 51K  
bytes apiece (I can change this if you know your  
e-mail system will truncate below this size.).  
Also a bourne shell script will also be mailed  
that will do the work of re-assembling the pieces.

Each e-mail message will tell you at the top  
what name to use when you save it. The top of the  
script explains how to use it.

If you don't have uncompress and uudecode I \*can\*  
send chopped up plain ascii but it will be  
(\*warning\*warning\*)  
seventy (70) separate e-mail messages! You better  
be desperate... (yow!)

\_Roger

Roger M. Pease - KE6PPI - pease@Sun.COM

From owner-qrp-1@netcom.com Fri Jan 27 09:07:57 1995  
Date: Fri, 27 Jan 1995 06:35:10 -0500 (EST)  
From: James Lyons <jlyons@CAM.ORG>  
Subject: Re: Curtis Chip PostScript  
Message-Id: <Pine.SOL.3.91.950127063338.3181A-100000@ocean>

Yes. I FTP'd it in ASCII and printed it on a post script printer by the  
following DOS command ...

copy 8044.ps prn:

Jim Lyons, VE2KN

On Thu, 26 Jan 1995, DJ Wang wrote:

>  
> Has any one FTPed the 8044.ps file yet? The XPSVIEW on my  
> SiliconGraphics does not recognized the file.  
>  
> Thanks and 72  
>  
> D.J., N2YKP  
>  
>

From owner-qrp-1@netcom.com Fri Jan 27 10:32:14 1995  
Message-Id: <199501271257.HAA11904@jfwhome.funhouse.com>  
Subject: Re: Curtis Chip PostScript  
Date: Fri, 27 Jan 1995 07:57:14 -0500  
From: "John F. Woods" <jfw@jfwhome.funhouse.com>

> Has any one FTPed the 8044.ps file yet? The XPSVIEW on my  
> SiliconGraphics does not recognized the file.

Yes, I picked it up, and Ghostscript handled it fine, translating it for my "PCL III compatible" DECcolorwriter 520ic.

From owner-qrp-1@netcom.com Fri Jan 27 15:34:46 1995  
Date: Fri, 27 Jan 95 12:33:34 -0500  
From: djwang@ginger.biophys.upenn.edu (DJ Wang)  
Message-Id: <9501271733.AA06728@ginger.biophys.upenn.edu>  
Subject: re: Curtis Chip PostScript

Thanks for the overwhelming responses (a total of 8 people responded, what a group!). I should have try printing it out first. The "lp" command worked Ok, the print outs are very impressive on our Apple LaserWriter, thanks Chuck. I tried viewing it with Ghostview on a Linux machine, it worked just fine. Don't know why the Xpsview doesn't like the file. Again, thanks guys.

D.J., N2YKP

From owner-qrp-1@netcom.com Fri Jan 27 19:23:45 1995  
Message-Id: <2f29766a.wa8tzg@wa8tzg.mi.org>  
Date: Fri, 27 Jan 1995 17:40:41 EST

From: wwm@wa8tzg.mi.org (Bill Meahan)  
Subject: Re: Curtis Chip PostScript

N2YKP writes:

>Has any one FTPed the 8044.ps file yet? The XPSVIEW on my  
>SiliconGraphics does not recognized the file.  
>

Yup. Ghostview 3.12 barfed on the file complaining loudly about duplicate %%Bounding Box lines and that the %%Pages comment did not match the actual number of pages. It DID display the first page, but crashed when I tried to look at pages beyond Page 1.

I was using Ghostview 1.1b to do the viewing on my PC. Haven't tried with a "real" Postscript printer yet.

--

Bill Meahan WA8TZG wmeahan@wa8tzg.mi.org  
Member of: ARRL, IMRA, NorCal QRP, G-QRP (#8468), IEEE Computer Society  
Hey, this is my OWN computer! I can say what I want!  
cat: a purr bearing mammal

From owner-qrp-l@netcom.com Fri Jan 27 22:37:58 1995  
Date: Fri, 27 Jan 1995 14:45:05 -1000  
Message-Id: <199501280045.0AA27047@mango.aloha.com>  
From: beltrani@aloha.com (Paul Beltrani)  
Subject: Electronic Parts/Equip suppliers

Brian Carling has asked me to upload his 'MegaList' of equipment and parts suppliers to an ftp sit so it would be available to more people. The file is now available via anonymous ftp from: oak.oakland.edu in the /pub/hamradio/docs/misc directory.

Thank you to the oak site for accepting the upload.

A description from the list itself follows:

>#####  
>I am amazed at how MANY outfits there are that still cater to home-builders  
>and QRP operators. Must be a LOT of demand out there! Magazines such as  
>"73 Amateur Radio Today", QST, Practical Wireless and "Shortwave  
>Magazine" (England) still publish a lot of good construction articles  
>for amateur radio. This is NOT an exhaustive list. If you have additions,  
>send them to me and I'll gladly add them to this list. Most of these  
>companies will gladly send you a catalogue if you call or write requesting  
>one. Also, if you find that one or two of these companies are out of  
>business, PLEASE drop me a message & let me know about it so that I can  
>delete them!  
>



>This list was prepared by AF4K, Brian Carling 26 December, 1994  
>Please send additional sources for inclusion in this list.  
>If you go to a hamfest and see someone selling tubes, get a card  
>please and send me their name, address and phone number.

>

>FIDO Netmail ----> 1:109/423  
>Internet -----> brian.carling@acenet.com  
>Relaynet (RIME)--> #5365 or ACEONLINE  
>Packet -----> AF4K @ W3INK.#MD.USA.NA

- Paul Beltrani

beltrani@aloha.com

ah6nu@nh6yw.hi.usa.oc Amateur Radio Packet

From owner-qrp-l@netcom.com Fri Jan 27 21:25:42 1995  
From: lhalliday@creo.bc.ca  
Date: Fri, 27 Jan 95 14:02:50 PST  
Message-Id: <9500277912.AA791244467@mail.creo.bc.ca>  
Subject: Re: Endangered Kit Suppliers

Hmmm...don't know about kits (but I always like to mess with good ones), but I just got back from a business trip back east, and unless Indianapolis is weird, anybody who complains about not being able to get parts mustn't be looking too hard.

At Radio Shack I found (and bought) things like IRF510s and MPF102s - yes, a bit more expensive than Digi-Key, but much more convenient. I stopped by MAI on North Michigan and found huge stacks of things like silver mica capacitors (I've got lots), and bought a handful of other goodies like BCD switches and 2N3866 transistors. As well as a couple of small air variable capacitors, one 10pF and the other 44pF.

Now to think of some things to do with some of these items...the 2N3866s will be the driver stage in a 2m VXO CW transmitter (Mode A, anybody?), and I'm sure I can find things to do with the other goodies...

73 from Burnaby,  
laura VE7LDH, slightly jet-lagged

From owner-qrp-l@netcom.com Fri Jan 27 12:30:22 1995  
Date: Fri, 27 Jan 1995 08:45:35 -0800  
From: n1list@netcom.com (Michael L. Ardai)  
Message-Id: <199501271645.IAA03229@netcom4.netcom.com>  
Subject: Forward from rec.radio.swap

Xref: netcom.com rec.radio.swap:21371  
Path: netcom.com!ix.netcom.com!howland.reston.ans.net!news.moneng.mei.com!uwm.edu!  
lll-winken.llnl.gov!korie1!male.EBay.Sun.COM!engnews2.Eng.Sun.COM!usenet  
>From: kbn@Eng.Sun.COM (Kevin Normoyle)  
Newsgroups: rec.radio.swap  
Subject: Ten Tec Power Mite QRP xcvr  
Date: 27 Jan 1995 00:43:31 GMT  
Organization: Sun Microsystems Inc., Mountain View, CA  
Lines: 6  
Message-ID: <3g9fjj\$adv@engnews2.Eng.Sun.COM>  
Reply-To: kbn@Eng.Sun.COM  
NNTP-Posting-Host: gluoeng.sun.com

oldie from the 60-70's... tri-band <2watt CW xcvr  
(80-40-I forget the 3rd)

any interest?

From owner-qrp-1@netcom.com Fri Jan 27 17:51:56 1995  
Date: Fri, 27 Jan 95 13:52:44 -0600  
From: adams@chuck.dallas.sgi.com (chuck adams)  
Message-Id: <9501271952.AA02034@chuck.dallas.sgi.com>  
Subject: Hallicrafters T0 Keyer

Wanted: manual to the above

dit dit

Chuck Adams K5FO CP-60 adams@sgi.com

From owner-qrp-1@netcom.com Fri Jan 27 12:02:00 1995  
Date: Fri, 27 Jan 1995 08:52:00 -0500  
From: "david (d.) burniston" <davidgb@bnr.ca>  
Message-Id: <"2965 Fri Jan 27 08:53:13 1995"@bnr.ca>  
Subject: IAMBIC Keyers?

Hi...

Having used a straight key all of my ham career, I recently built a  
keyer circuit from a SPRAT magazine and am starting to use it.

Can someone enlighten me as to what an IAMBIC keyer really is and what  
the different modes mean?

Thanks...

... Dave

```
=====
Dave Burniston,          Bell Northern Research  Ottawa, ON Canada
VE3LFO                   ph.(613) 765-3579
NORCAL 434               *** All opinions are strictly my own. ***
=====
```

From owner-qrp-l@netcom.com Fri Jan 27 17:20:33 1995  
From: djwang@happy.biophys.upenn.edu (DJ Wang)  
Message-Id: <9501271924.AA07307@happy.biophys.upenn.edu>  
Subject: Re: Interesting new IC  
Date: Fri, 27 Jan 1995 14:24:38 -0500 (EST)

>  
> > I recently received a new waveform generator IC from MAXIM for evaluation  
> > that looks quite interesting -- it is the MAX038. Some features are:  
> >  
> > - 0.1Hz to 20MHz frequency range  
> > - Triangle, sawtooth sine square and Pulse waveform output (NOT all at  
> > the same time! - selectable)  
> > - Independent frequency and duty cycle adjustments  
> > - 350 to 1 frequency sweep range (can be FM modulated!)  
> > - Duty cycle adjustable from 15% to 85%  
> > - Low output buffer impedance: 0.1 Ohm  
> > - Low distortion sine wave output: 0.75% (not sure what that means...)  
> > - Temperature drift spec of 200ppm/deg C (not too shabby...)  
> >  
> > Looks like it could be the basis for a hellofa compact VFO -- remember, you

A better alternative may be the Analog Device DDS chip (AD7008JP50), you get  
0 to 20MHz with milli Hertz resolution.

> > heard it here first! (Actually, I think some else on the list asked about  
> > this critter before.) However, I have no idea what this little gem costs...  
>

AD7008 costs around \$20 which is about the same as MAX038. This DDS chip  
is a complete DDS which requires only an XTAL oscillator and a low pass  
output filter, it, however, requires a CPU or a PC (parallel/serial port)  
to drive it.

> Chips of this type often have fairly poor phase noise characteristics.  
> Does the Maxim data sheet give any figures?  
>  
> Dana  
> Dana.Myers@West.Sun.Com  
> P.S. I operate VHF FM QRP (+25dBm)  
>

I am going to use it as the VFO for my homebrew transceiver.

D.J., N2YKP

From owner-qrp-l@netcom.com Fri Jan 27 13:54:07 1995  
From: rossi@VFL.Paramax.COM  
Message-Id: <9501271452.AA16715@gvlf9-a>  
Date: Fri, 27 Jan 95 09:52:55 EST  
Subject: Is there a QRP Internet directory?

Is there a cross-reference list of QRP callsigns and their corresponding Internet e-mail addresses?

If you hear a call on the air and would like to send the person e-mail, it would be nice to be able to look up their e-mail address.

Does such a list exist? If not, then we should start one.

WA3NNA Pete Rossi rossi@vfl.paramax.com

PS. I am aware of the large multi part listing of hams on Usenet that gets posted to rec.radio.info once a month or so... but is is generally very incomplete ie. lots of people I know have Internet access and are not on the list.

I also saw the "QRP cheat sheet" a few weeks ago, but it did not have any e-mail addresses on it.

---

Pete Rossi - WA3NNA  
rossi@vfl.paramax.com  
Unisys Corporation - Government Systems Group  
Valley Forge Engineering Center - Paoli, Pennsylvania

From owner-qrp-l@netcom.com Fri Jan 27 12:43:16 1995  
Date: Fri, 27 Jan 1995 11:25:13 -0330 (NST)  
From: Robert Gobrick <bgobrick@random.ucs.mun.ca>

Subject: Re: Keyer Info?

Message-Id: <Pine.ULT.3.91.950127111817.3816A-1000000@random.ucs.mun.ca>

Hi Craig - it's a personal decision (A or B) but if you want to be COOL and WIRED than Curtis B is the way to go.

Having said that the optional MFJ keyer for the 90xx rigs come wired as Curtis A (beats the heck out of me why they did that since their Grandmaster keyers were always wired Curtis B). So make the jumper change on the optional keyer.

The Super CMOS Keyer II comes with any combination you desire - they even have a a modification of the Curtis B (they call Accukeyer mode) which makes some additional space decisions for you (forget what they call their mode - Super mode or something) but the Accukeyer mode is the same as the Curtis B mode.

Wire up the NORCAL keyer (classical Curtis/QST design as B.

Good luck and Dah-di-dah (which is a Chuck version of squeezing the iambic key while using curtis b mode ;-)

72 Bob V01DRB/WA6ERB

On 26 Jan 1995, Craig LaBarge wrote:

>  
> Does anyone know off-hand what mode of iambic operation (e.g., A or B) the  
> following keyers use?  
>  
> MFJ optional keyer for the 90XX QRP rigs  
> Super CMOS II keyer  
>  
> Any info would be appreciated.  
>  
> I'm brand new to electronic keying and, from what I hear, IAMBIC B seems to be  
> the more common mode these days (although, to me, IAMBIC A seems to be more  
> intuitive). Since I just started learning to use a keyer this week, I haven't  
> worked up to using iambic techniques yet. So, I haven't committed to either  
> mode yet. I set up my Curtis keyer kit from Jim Cates for IAMBIC B and I find  
> the timing to be tricky to master. This is gonna take some time! :-)  
>  
> 73, Craig WB3GCK  
>  
>

From owner-qrp-l@netcom.com Sat Jan 28 00:37:28 1995

Date: 27 Jan 95 22:02:43 EST

From: Craig LaBarge <74740.3166@compuserve.com>  
Subject: Re: Keyer Info?  
Message-Id: <950128030242\_74740.3166\_EHB126-4@CompuServe.COM>

Thanks to everyone who responded to my earlier posting regarding the MFJ options keyer for the 90XX rigs and the super CMOS II keyer.

To summarize the responses, the MFJ optional keyer is junper-selectable for iambic A or B. The CMOS II can do both modes and then some.

Thanks again everyone!

73, Craig WB3GCK

From owner-qrp-l@netcom.com Fri Jan 27 05:23:55 1995  
From: Duncan Cadd <dcadd@luc.ac.be>  
Message-Id: <9501270901.AA12810@alpha>  
Subject: L and C of 12ga wire  
Date: Fri, 27 Jan 1995 10:01:55 +0100 (MET)

Greetings from Diepenbeek in N.E. Belgium!

I hope the following proves of interest to our theoretically-inclined colleagues, and also of use to the mag. loop enthusiasts.

The following information was shamelessly pinched from the Handbook of Chemistry and Physics (publ. Chemical Rubber Publishing Company) 42nd Edition, 1960-61 (the modern editions don't contain the radio data) unless otherwise acknowledged. The data relating to dielectrics came originally from the ASTM, and that on radio stuff (C and L) from the Bureau of Standards, so if your friend needs more detail Dan, I suggest he contact them directly, for scientific research purposes I'm sure they'll be glad to help.

Unless otherwise stated, capacitances are in pF, inductances in uH, lengths, heights, diameters etc in cm, areas in sq. cm. Log(x) denotes log to the base 10 and ln(x) denotes log to the base e of x. SQR(x) is the square root of x and SQ(x) is x squared.

Before answering Dan's question about 12ga wire, I'll throw this in for general interest and his subordinates, major concern and private fascination.

---

The dielectric constant of air is 1. Other values of K for well-known dielectrics are: polythene = 2.3 ; polystyrene (not foam) = ca. 2.5 (both

these degrade in UV light) ; PTFE = 2.0 (does not degrade in UV) ; mica = 7 - 9;  
and porcelain = 6 - 8.

If  $t$  = thickness of dielectric (must completely fill gap between plates),  
 $N$  = no. of plates, and  $a$  = area of one plate, then for a parallel plate capacitor,

$$C = 0.0885 K (N-1) a / t$$

The significance of this for mag loop enthusiasts is that the plates of a variable capacitor can be fixed and thus have good low-loss connections i.e. no sliding contacts, and the capacitance varied by sliding a solid dielectric in and out from between the plates. Using PTFE would give a capacitance ratio of 2:1 whilst porcelain tiles might give 6:1 or 8:1.

Antenna (end-loading) capacitors, disk and sphere, if  $D$  is the diameter:

$$C = G D \text{ where } G = 0.354 \text{ for a disk or } G = 0.556 \text{ for a sphere.}$$

Now to answer Dan's question, leastways regarding  $L$  and  $C$  of a wire.

For a single long wire parallel to the ground at height  $h$  (cm) where the diameter  $d$  is small compared to the length  $L$  (used to avoid ambiguity between  $l$  and  $1$ ) :

$$\text{For } 4h / L \leq 1: \quad C = 0.2416 L / (\log (4h / d) - k1)$$

$$\text{For } L / 4h \leq 1: \quad C = 0.2416 L / (\log (2L / d) - k2)$$

where

$$k1 = \log [ (1 + \text{SQR}(1 + \text{SQ}(4h/L) ) ) / 2 ]$$

$$k2 = \log [ (1 / 4h) + \text{SQR}(1 + \text{SQ}(L/4h) ) ]$$

{ For VERTICALS high above ground  $C = 0.2416 L / (\log (2L/d) )$  :

The ARRL Antenna Handbook 1954 (!) gives, for a vertical shorter than a quarter wave:

$$C = 17L / [ ( \ln(24L/d) - 1 ) (1 - \text{SQ}(FL/246)) ]$$

where  $L$  is in FEET and  $d$  in INCHES and  $F$  is the frequency in MHz. }

The inductance of a wire and of permeability  $\mu$  ( $\mu = 1$  for all except iron wire )

$$\text{Inductance in } \mu\text{H} = 0.002 L [ (\ln (4L/d))^{-1} + \mu D ]$$

where D is taken from the table below and the value of  $x$  required to find D is given for copper wire at 20 C by

$$x = 0.1071 d \sqrt{f} \quad \text{where } f \text{ is the frequency in Hz (not MHz)}$$

TABLE OF  $x$  AND D VALUES FOR THE ABOVE:

$x$	D	$x$	D
0	0.250	12	0.059
0.5	.250	14	.050
1.0	.249	16	.044
1.5	.247	18	.039
2.0	.240	20	.035
2.5	.228	25	.028
3.0	.211	30	.024
3.5	.191	40	.0175
4.0	.1715	50	.014
4.5	.154	60	.012
5.0	.139	70	.010
6.0	.116	80	.009
7.0	.100	90	.008
8.0	.088	100	.007
9.0	.078	infinite	.000
10.0	.070		

---

There are quite a few more formulae given for capacitance and inductance of vertically and horizontally stacked wires, square loops etc, but if I include all that, this note is going to be BIG !!

Dan, my experience of theoreticians (I work in the Polymer section of the Chemistry Department of the Limburgs Universitaire Centrum) is that more often than not, the derivation of any formulae used is required to confirm the validity of anything derived in turn - that I can't provide, but suggest that if your friend needs it, he should contact the Bureau of Standards who originated the above.



I hope this gives at least a partial answer to the 12ga wire question.

---

I often find theoretical work hard going, although I'm forced to admit it's necessary, but I take comfort from the words of Edwin Armstrong who gave us FM:

"Anyone who has had actual contact with the making of the inventions that have built the radio art knows that these inventions have been the product of experiment and work based on physical reasoning, rather than the mathematicians' calculations and formulae. Precisely the opposite impression is obtained from many of our present day text books and publications."

at which no doubt many a scientist will have a sense of deja vu.

I also like the following:

"...mathematics...a sort of lazy tongs by the aid of which conclusions may be reached without straining the intellect." Alfred M. Still

I confess my ignorance regarding Still's work. Anyone know what he contributed to life ?

---

P.S. I am also a gun nut. Anyone know if there's a shooters' forum on the Internet ?

73,

Duncan Cadd, GOUTY

"If I had all the money I'd spent on drink - I'd spend it on drink."  
Sir Henry Rawlinson

dcadd@luc.ac.be

Limburgs Universitaire Centrum,  
Gebouw D,  
Afdeling SBG,

Universiteitslaan,  
B-3590 Diepenbeek,  
BELGIUM

From owner-qrp-l@netcom.com Fri Jan 27 12:17:55 1995  
Date: Fri, 27 Jan 1995 08:47:08 -0500 (EST)  
From: CEBIK@utkvx.utk.edu  
Subject: MAX038 20 MHz waveform generator  
Message-Id: <01HMC2FUFAEU8YDMWR@utkvx.utk.edu>

I have been waiting over a year for someone to use the chip in a hamshop signal generator at a reasonable cost for all the same functions that we have used the EICO, Heath, etc. warblers for in the past. One Xtal mixer with the synthesized MAX038 and--voila--20 to 40 MHz also. Of course, for simplicity, would need separate outputs and a good output level control system. Chip has enough output to drive a "buffer-AMP" QRP transmitter (at home, since the test-equipment version should be large enough not to fall in the trash can unnoticed). Boards have been available from someone (papers not at hand) for quite a while. The thing just needs some ham ingenuity to come up with a reasonably priced general purpose signal generator. I'd pay \$200 for such a machine, maybe a bit more, even in kit form for such a device. May need an optical encoder to give convenient frequency control, and someone will add a counter to run up the price, but what the heck--it beats having to pay multi-kilobucks for a used HP synthesized generator.

-73-

LB, W4RNL

From owner-qrp-l@netcom.com Fri Jan 27 23:28:02 1995  
Message-Id: <199501280000.SAA13368@ns1.arlut.utexas.edu>  
Date: 27 Jan 1995 17:57:32 U  
From: "rohre" <rohre@msmailgw1.arlut.utexas.edu>  
Subject: Measuring velocity propag.: wire

To all,

I have been following the discussion of what is the way to determine the velocity factor of insulated wire? I have been disappointed in even the new IEEE Electrical Engineering Handbook does not mention Velocity Factor/ or propagation in its index, but does talk about propagation delay caused by increased dielectric constant. The net effect of insulation on the wire is to slow down the wave.

Sometimes, I like to go back into the technical library here at work and consult the early texts like Henney's "Radio Engineering", (if I am remembering the name correctly), and marvel at how they did things without the computers and instruments of today.

Well, for this; as I was about to go over there for that purpose, it came to

me. For antennas the free space half wave is the well known 492 divided by frequency in MHz. The end effects of insulators and feedline effects, and proximity to the surroundings cause us to cut wire dipoles with the formula 468 divided by frequency. The difference is about 5 per cent. Now, when dealing with feedlines, it is known that the wave travels more slowly there than free space, and this effect is shown in tables for the various types of coax. There, the effect is to shorten the amount of coax for a wavelength over the wavelength in free space.

To characterize the effect of the insulation, cut approximately a half wave dipole of the insulated wire for say 10 meters. It should be easy to get it free of most effects by placing it up a 1/4 wave, about 8 feet.

Measure the frequency of minimum SWR to find the resonant point. If you use a halfwave of coax to feed it you can pretend your meter is right at the center of the dipole up in the air. (It will repeat the impedance it sees at the antenna to the meter). This takes the feedline out of the picture (almost). Now lower the antenna, strip off the insulation, and raise the antenna up to the same location, and remeasure the lowest SWR (resonant) point. The percentage difference in these two resonant frequencies is the effect of the insulation. Now this is good for the PVC on this particular wire, but probably varies with the dielectric constant for other wire insulation materials. Those of us with MFJ Antenna Analyzers, or the Autek RF-1 should try some of this and report back for the group benefit.

Another way of doing this would be to use the formula for half wave wire dipole,  $(468 \text{ over } f)$ , and do a dipole of insulated wire. See for a given frequency you calculated, how much different is the resonant frequency of the insulated dipole.

To summarize, the length of thin wire dipoles of half wavelength is about 5 per cent less than the free space half wave length. This result is one case of change caused by the wire's surroundings, and similar change appears if the antenna is encased in insulating material. The amount of change depends on the dielectric constant and parameters such as the thickness of the insulation versus the thickness of the antenna.

A book on antennas that discusses issues such as insulation and proximity to the body for portable radio antennas is "Small Antennas" by Fujimoto, Henderson, Hirasawa, and James.

72,  
Stuart  
K5KVH

From owner-qrp-l@netcom.com Sat Jan 28 02:43:53 1995  
Date: Fri, 27 Jan 95 23:05:16 -0600  
From: adams@chuck.dallas.sgi.com (chuck adams)

Message-Id: <9501280505.AA02928@chuck.dallas.sgi.com>  
Subject: N6ULU

Gang,

I got email a couple of days ago from Stan and I thought I'd be one of the first to congratulate him publicly for a significant achievement.

As you might have noticed on his posts to this group, his signature has something like "72.xxx almost a QRP convert", if my memory serves me right, and I'm in the middle of this thing from the house and can't look it up and it's not that critical.

He has a NorCal 40 that he has been using all this winter season to chase DX. Well, he managed to work his 100th country on 40M!!! That is a significant achievement in anyone's book at even more power out than QRP levels.

One of the problems now is getting all 100 cards for QRP DXCC SINGLE BAND.

Again, congratulations to Stan on this achievement. To my knowledge he is the first and only one to do this on a NorCal 40. What an antenna farm and what patience and perseverance that takes. I'll ask him to give us a writeup on what it takes to do this.

73 es gud dx

Chuck Adams K5FO CP-60 adams@sgi.com

From owner-qrp-l@netcom.com Fri Jan 27 10:19:16 1995  
Subject: OHR Kits Only  
From: brian.carling@acenet.com (Brian Carling)  
Message-Id: <2a6.8586.500@acenet.com>  
Date: Fri, 27 Jan 1995 06:10:00 -0500

>From: brian.carling@acenet.com

adams@chuck.dallas.sgi.com writes:

CA>Gang,

CA>So it looks like that Dan's Small Parts & Kits  
CA>in Missoula MT is getting the be one of the few  
CA>"small" places other than Mouser and DigiKey to  
CA>get parts any more. I think it's a sign of the  
CA>times for experimenters or the lack thereof.

Interesting. However, I have a list of hundreds of places where you can  
buy small quantities of parts still, so don't despair!

brian.carling@acenet.com

---

~ SLMR 2.1a ~ And tonight's forecast: DARK!

From owner-qrp-l@netcom.com Fri Jan 27 16:20:41 1995  
Date: Fri, 27 Jan 1995 17:07:04 PST  
From: Willibald Kraml <kraml@topics.co.at>  
Subject: Re: One of the last Sierra's is alive and well.  
Message-Id: <ECS9501271704H@topics.co.at>

Hi,

I am quite new to this list, so please forgive me when I'm asking a  
silly question:

I noticed a few messages mentioning the NORCAL Sierra kit - I assume  
this is kind of a club project, and as far as I understood the kits  
are sold out. Then again, from what I heard. it seems to be a rather  
well-designed piece of equipment, and I really would like to try my  
luck with such a beastly - are there any chances to get hold of a  
kit, or will there be a 2nd edition??

I rediscovered ham radio rather recently (after having been licenced for  
28 year), but I want to put some emphasis on CW, homebrew and QRP  
(after all, it seems all too easy to buy some jap 100 w radio, hook  
up a commercial antenna and start shouting in ssb; I want a bit more  
of a challenge ;-)

Willi, OE 1 WKL (soon OE 3 WKL)

--

W. Kraml

topics informationssysteme gmbh

Thurngasse 8/3, A-1090 Vienna, Austria, Tel: ++43 (1) 31332 200

From owner-qrp-1@netcom.com Fri Jan 27 15:44:54 1995  
Date: Fri, 27 Jan 1995 08:13:30 -0800  
From: myers@bigboy73.West.Sun.COM (Dana Myers)  
Message-Id: <9501271613.AA12511@td3.West.Sun.COM>  
Subject: Oscillator performance (was Re: Interesting new IC)

[I wrote:]

> >Chips of this type often have fairly poor phase noise characteristics.  
> >Does the Maxim data sheet give any figures?  
>  
> Nope... nothing that I can directly correlate with phase noise. One  
> interesting aspect, tho; the basic oscillator generates a sawtooth which is  
> then converted to a sine wave or a square wave, depending on external  
> control signals. This could result in a not-too-clean sine wave, but a low  
> pass filter should clean it up. Also, temperature drift could be a problem,  
> as pointed out by others.

Remember that the sine wave is only interesting in that has lower harmonic energy than other waveforms. The process of converting the sawtooth wave to a square or sine may increase the phase noise energy of the signal. So, it is worth evaluating the phase noise performance of all the chip outputs. Afterall, if you use a class-C PA after this VCO, the advantage of using a sine wave is essentially nil.

The oscillator probably uses a current source and a capacitor with trip points to charge and discharge the cap, right? If so, I'm told these are pretty bad as far as phase noise performance. This might not be so bad in a low power transmitter, but it could severely impact receiver performance.

If the VCO is in a PLL, temperature drift should only track that of the reference, so you really shouldn't have to worry about the VCO stability, as long as you design the loop with adequate margins to track over the temperature range.

> The chip includes a phase detector, but it is interesting that their  
> application note using it in a phase lock loop used an external phase  
> detector...

Keep in mind, building a PLL which tunes an extremely wide range with a single VCO, especially without using digital bandswitching, ends up with a VCO with extremely high tuning sensitivity. This means that noise on the tuning line will result in greater incidental FM noise, in other words, phase noise. Manufacturers publish app notes showing wide range PLLs, but these are often intended for things like clock recovery

in disk, tape and data comms systems, applications where pretty high levels of phase noise are tolerable.

I realize I may appear to be a little negative about VCOs on chips. My experience has been they're really not suitable, as a rule, for radio use. An easy experiment is to listen to the signal on your receiver; can you hear the noise floor as you tune across the signal frequency? Though you can't determine the absolute phase noise, you can compare it to other oscillators using a receiver. Build an LC oscillator, a crystal oscillator, and single chip oscillator, all around the same frequency, and, for each one, look at the receiver noise versus frequency offset as you tune across the signal.

This technique is influenced by the phase noise performance of your receiver, so it is really only a comparative approach, but it can be quite revealing.

From owner-qrp-1@netcom.com Fri Jan 27 21:25:44 1995  
From: K7YHA@aol.com  
Date: Fri, 27 Jan 1995 18:19:20 -0500  
Message-Id: <950127181919\_1348381@aol.com>  
Subject: Re: Photos

I'm glad SOMEBODY loves Texas....I'd heard a rumor that if the Alamo had a back door, Texas would still belong to Mexico!

72 rich

From owner-qrp-1@netcom.com Fri Jan 27 17:17:41 1995  
Date: Fri, 27 Jan 1995 12:33:26 -0500 (EST)  
From: prvalko <prvalko@vela.acs.oakland.edu>  
Subject: Sheeze! Fwd Sale Ads...  
Message-Id: <Pine.3.89.9501271253.A10506-0100000@saturn.acs.oakland.edu>

I know the intentions were admirable, but I for one would rather NOT get USENET ads (or other messages) forwarded to qrp-1.

The same message getting sent twice in a couple minutes was too much.

Any comments?

73 =paul= wb8zjl

From owner-qrp-1@netcom.com Fri Jan 27 21:38:07 1995

From: K7YHA@aol.com  
Date: Fri, 27 Jan 1995 18:19:16 -0500  
Message-Id: <950127181915\_1348323@aol.com>  
Subject: Re: Ten Tec Argo 556

I have talked to several Scout owners....one REALLY big problem is the way the microprocessor yields frequency control when in the CW mode. This apparently makes the rig into a frequency hopper....clandestine QRP!

Fred Turpin, K6MDJ, had several negative comments about the rig...first, the main tuning dial was very hard to turn...he had carpal-tunnel syndrome in the past and was concerned that this might aggravate the condition. Also, his S-meter went out...T-T sent him a replacement but he had to tear the rig completely down to put the new meter in....when he had the rig fully disassembled he found that T-T had epoxied the meter in place. He sent the rig back for full refund.

Quite frankly, I don't think T-T has had it right since the Argo 515!

72 rich

From owner-qrp-l@netcom.com Fri Jan 27 23:25:35 1995  
Date: Fri, 27 Jan 1995 18:02:31 -0800  
From: myers@bigboy73.West.Sun.COM (Dana Myers)  
Message-Id: <9501280202.AA14378@td3.West.Sun.COM>  
Subject: Re: Ten Tec Argo 556

> From: K7YHA@aol.com  
> Date: Fri, 27 Jan 1995 17:35:24 -0500  
> To: brian.carling@acenet.com  
> Cc: qrp-l@netcom.com  
> Subject: Re: Ten Tec Argo 556

>  
> Sigh.....too bad they didn't come up with the QRP Plus in 1991 and save themselves some grief. The QRP Plus really is a better radio for the money than the Argo-II. Current pricing of an Argo-II works out to about \$260/watt....not exactly light change!

Yeah, but \$\$/W isn't exactly a meaningful metric when there is a receiver involved. A good receiver is at least as important as a good transmitter, much more important when running QRP and trying to work other QRP stations. The ability to pull a weak signal out from amongst several stronger ones is critical, even when using Morse code :-).

I could see talking about \$\$/W for transmitters, but not things that have receivers in them :-).



From owner-qrp-1@netcom.com Sat Jan 28 00:14:41 1995  
From: K7YHA@aol.com  
Date: Fri, 27 Jan 1995 17:35:24 -0500  
Message-Id: <950127172905\_1292596@aol.com>  
Subject: Re: Ten Tec Argo 556

I totally agree that the QRP Plus is a much better value than either the T-T 556 or the Argo-II. T-T has fallen short on both of these rigs. In talking with several owners of 555/556 Scouts there appears to be a multitude of problems that have beset this little rig. Nothing really major, just a lot of little annoyances that turn people off over a period of time.

Sigh.....too bad they didn't come up with the QRP Plus in 1991 and save themselves some grief. The QRP Plus really is a better radio for the money than the Argo-II. Current pricing of an Argo-II works out to about \$260/watt....not exactly light change!

72 rich

From owner-qrp-1@netcom.com Fri Jan 27 12:22:33 1995  
Date: Fri, 27 Jan 1995 08:15:09 -0800  
From: faunt@netcom.com (Doug Faunt N6TQS 510-655-8604)  
Message-Id: <199501271615.IAA09552@netcom9.netcom.com>  
Subject: Ten Tec Power Mite QRP xcvr

For those people who may have given up on usenet.

From: kbn@Eng.Sun.COM (Kevin Normoyle)  
Newsgroups: rec.radio.swap  
Date: 27 Jan 1995 00:43:31 GMT  
Organization: Sun Microsystems Inc., Mountain View, CA

oldie from the 60-70's... tri-band <2watt CW xcvr  
(80-40-I forget the 3rd)

any interest?

From owner-qrp-1@netcom.com Fri Jan 27 01:48:25 1995  
Date: Thu, 26 Jan 1995 21:12:24 -0500 (EST)  
From: Wynn C C <wyn@stc06.CTD.ORNL.GOV>  
Subject: Ten-Tec 556 vs. 555 at low Power  
Message-Id: <Pine.OSF.3.91.950126210807.2711A-100000@stc06.CTD.ORNL.GOV>

Subject: Re: Ten-Tec 556 vs. 555 at low Power

Robert,

We had one of the Ten-Tec marketing people speak at our local radio club this past Monday (Smoky Mountain Amateur Radio Club meets 4th Mondays, and all visitors welcome). His primary interest was to talk about the OMNI VI unit and its superior quiet phase noise which they are apparently very proud of. However, some of us managed to divert him long enough to get some comment on the following points:

Yes the 556 is just a 555 with the PA section omitted. Yes they have noted the complaints about high standby current relative to QRP standards, but are not planning on changing it nor (as I asked) planning to produce a 556B model with optimized standby current. (I suspect this might change when they see a dip in the 555 demand. However, another TT employee recently told me they are running their 555 production line full speed with many going to export).

Ten-Tec was "overwhelmed" by the response they received with the start up of their kit line. Only now do they realize how much Heath Kit is missed, and envision they could be the next Heath Kit type company if that is what they choose to pursue. They are currently shipping the first units of their 5W 2MFM kit even though the kit catalog came out last spring. Also some of the fellows in our club have built the 6M transverter kit which has a 20 meter 5 watt input/if. Point is, with a 20 meter QRP rig and this transverter you could be on 6 meters presto.

What about a 556 as a kit? (I was thinking Sierra with SSB.) Probably not since the 556 has some manufacturing and tune up processes that go beyond the typical kit builder's capabilities. (Bummer!)

What's coming in the future? He said to look for more DSP stuff and not just more AF processing. They currently are producing a receiver for a government agency (sound like NSA?) that is DSP from the 455 KHz IF on down. The units are stacked then slaved to a master computer that controls and scans all receivers and digitally records selected outputs before the D/A function for further correlation and analysis. You can buy one now for approx. \$3000 complete with no knobs, no meter, no lights, just a multi-pin plug, antenna jack, and interface spec.

I don't work for TT, own any TT stock, own any TT equipment. Just glad to see any Ham gear mfg. with good employee attitudes, apparently in it for the long haul, doing well.

72/73

Clay N4AOX

wyn@ornl.gov

From owner-qrp-1@netcom.com Fri Jan 27 21:24:48 1995  
Date: Fri, 27 Jan 1995 18:16:46 -0500 (EST)  
From: Wynn C C <wyn@stc06.CTD.ORNL.GOV>  
Subject: Re: Ten-Tec 556 vs. 555 at low Power  
Message-Id: <Pine.OSF.3.91.950127181112.18570A-100000@stc06.CTD.ORNL.GOV>

The information number for Ten-Tec kits is 1-615-453-7172  
FAX 1-615-428-4483  
Credit card orders only 1-800-833-7373

Or write Ten Tec Kits  
1185 Dolly Parton Parkway  
Sevierville, TN 37862-3710

72/73  
Clay N4AOX  
wyn@ornl.gov

From owner-qrp-1@netcom.com Fri Jan 27 10:46:38 1995  
From: "RICHARD HIEBER" <SZ0026@daphne.rrze.uni-erlangen.de>  
Date: Fri, 27 Jan 1995 15:12:34 MET  
Subject: The QRP Clubs List (V0.95)  
Message-Id: <2EE680D1E2D@daphne.rrze.uni-erlangen.de>

Reply-To: Richard Hieber <sz0026@daphne.rrze.uni-erlangen.de>  
Archive-name: qrp-clubs-list  
Last-Updated: 1995/01/27

----- Begin of The QRP Clubs List -----

=====

THE QRP CLUBS LIST

The QRP Clubs List  
Version 0.95  
January 27, 1995

Compiled by Richard Hieber, DL8MFQ/AA8CP.  
Email: <sz0026@daphne.rrze.uni-erlangen.de>  
Packet: [dl8mfq@db0sif.deu.eu]

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The contents:

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This file contains information about the following QRP clubs:

- o Arbeitsgemeinschaft CW / Activity Group Telegraphy (AGCW-DL)

- o QRP Amateur Radio Club International (QRP ARCI)
- o Benelux-QRP Club
- o QRP Club of British Columbia (BC QRP)
- o QRP Society of Central Pennsylvania (QSCP)
- o Cleveland QRP Amateur Radio Club
- o Colorado QRP Club (CQC)
- o CW Operators QRP Club
- o EA QRP Club
- o G-QRP Club (G-QRP-C)
- o Illinois QRP Group
- o Italian QRP Club (I QRP)
- o MFJ 90's Radio Club
- o Michigan QRP Club (MI QRP)
- o The QRP Club of New England (NE QRP)
- o The QRP Club of Northern California (NorCal QRP)
- o NorthEastern Illinois QRP Society (NEIQS)
- o The NorthWest QRP Club (NW QRP)
- o NorthTexas QRP Club (NorTex, NQC)
- o OK QRP Club (from the Czech Republic)
- o Oklahoma QRP Club (OK QRP)
- o St. Louis QRP Society (SLQS)
- o U-QRP Club
- o WI QRP Club

The ordering of this list is somewhat arbitrary though it tries to follow the alphabet :-). No weighing is intended.

Two list entries here are somewhat special:

- The "MFJ 90's Radio Club" is focussed on the MFJ 90xx series of QRP transceivers but not affiliated with the company. More than being a club it is rather a newsletter and its readership.
- The "AGCW-DL" is not a QRP club but rather a CW club. It is in the list because of its strong QRP activities and because there is no dedicated German QRP club.

In addition to all that you'll also find information about defunct clubs and newsletters, ceased activities, 'unofficial' groups and a small paragraph about the world famous INET QRP Club ;-)

-----  
The format:

-----  
ABBR: Abbreviation  
FULL: Full name

PRES: Club President  
ADDR: Contact address for membership and info  
SINC: In existence since ...  
COST: Membership cost (yearly)  
NEWS: Club newsletter, name and frequency  
NUMB: Current membership numbers (approximately)  
MEET: Regular meeting  
QNET: QRP nets, 'on the air' meetings  
PROJ: Previous and current projects  
TEST: Contests, activity periods  
AWRD: Awards  
COMM: Comments

The NUMB entry is only meant to give a rough indication about how big the club is. The numbers given are not precise and cannot be. The number of active members is not equal to the last issued membership number - some former members are SK now or have left the club. A good indication of active membership numbers is the number of people that subscribe to the club newsletter.

The PROJ entry isn't meant to be a listing of all the building projects that any club member has ever done. Rather it should list all the projects that were designed by a club member, were realized by several others and are available as a circuit diagram, kit or whatever. This entry shows you where household names like 'Epiphyte' or 'Sierra' originated.

Similar story with the TEST entry: It is not a list of activities the particular club \*participates\* in, but rather a list of activities that \*originate\* within the club. There is no space to give details. By supplying the name everybody can see that a special activity exists which will give him the starter to ask for more information.

I would also like to supply information about regular 'on the air' meetings of the clubs (entry QNET). If you know about such activities, please notify me; my address is at the end of this file.

In this revision of the QRP Clubs List lots of entries are empty, because information is missing. I didn't delete them to encourage feedback so that I can make the list more complete. But I know it looks stupid - so this will change in future revisions of the list.

Addresses in <brackets> are Internet email addresses; those in [brackets] are valid in the Amateur Packet Radio network.

-----

The list:

-----

ABBR: AGCW-DL  
FULL: Arbeitsgemeinschaft CW (Activity Group Telegraphy)  
PRES: Martin Hengemuehle, DL5QE  
ADDR: Service-Referat:  
      Tom Roll, DL2NBY  
      Richard-Wagner-Str. 11  
      90513 Zirndorf  
      GERMANY  
QRP:  
      Ha-Jo Brandt, DJ1ZB  
      Eichenweg 7  
      84160 Frontenhausen  
      GERMANY  
SINC: 1971  
COST: 15,- DM  
NEWS: "AGCW-DL INFO", two times a year  
NUMB: 2.350 (assigned membership numbers)  
      1.900 (subscribed to newsletter)  
      QRP-friends: > 100  
MEET: each year at Easter in Buedingen (Hessen, Germany)  
QNET:  
PROJ:  
TEST: AGCW-DL-QRP/QRP-Party, QRP-Winter-Contest, QRP-Summer-Contest  
AWRD: QRP-CW-500, QRP-CW-250, QRP-CW-100  
COMM: \*NOT\* a QRP club, but has a strong QRP section!  
      Virtually every AGCW contest has a QRP class. The listed ones  
      are \*pure\* QRP contests.

~~~~~

ABBR: QRP ARCI  
FULL: QRP Amateur Radio Club International  
PRES: Les Shattuck, WB2IPX  
ADDR: USA:  
      ARCI  
      c/o Mike Bryce, WB8VGE  
      2225 Mayflower NW  
      Massillon, OH 44647  
      USA  
      <73357.222@CompuServe.COM>  
  
GB:  
      Dick Pascoe, G0BPS  
      Seaview House  
      Crete Road East  
      <dick@kanga.demon.co.uk>

Folkestone, Kent CT18 7EG  
ENGLAND

SINC: 1961, adopted the 'true QRP' power limit of 5 watts in 1979  
COST: USA: \$14 new member, \$12 renewal  
DX: 7 Pounds new member, 6 Pounds renewal  
NEWS: "QRP Quarterly" (QQ), quarterly (January, April, July, October)  
NUMB: 8.800 (assigned membership numbers)  
1.500 (subscribed to newsletter)  
MEET:  
QNET:  
PROJ: Twofer Transmitter (in the 80's)  
TEST: Spring QSO Party, Fall QSO Party, a variety of sprints for both CW and SSB  
AWRD: QRP-25, WAC-QRP, WAS-QRP, DXCC-QRP, 1000-mile-per-watt (KM/W), QRP-NET (QNI-25)  
COMM: The QRP ARCI promotes on the air QRP operation, the use of designated QRP calling frequencies, regular QRP nets, and a program of QRP operating awards and contests. Oldest organisation of its kind; but since the 5 watts power limit was adopted only later, the G-QRP-Club is arguably the first real QRP club still in existence.

~~~~~

ABBR:  
FULL: Benelux-QRP Club  
PRES:  
ADDR:  
SINC:  
COST:  
NEWS: "Benelux QRP Club Newsletter"  
NUMB: > 189  
MEET:  
QNET:  
PROJ:  
TEST:  
AWRD:  
COMM: Still awaiting information about this one.

~~~~~

ABBR: BC QRP  
FULL: QRP Club of British Columbia  
PRES:

ADDR:  
SINC:  
COST:  
NEWS:  
NUMB:  
MEET:  
QNET:  
PROJ: Epiphyte, Neomyte  
TEST:  
AWRD:  
COMM: strong activities in QRP SSB construction.

~~~~~

ABBR: QSCP  
FULL: QRP Society of Central Pennsylvania  
PRES: John Jaminet, W3HMS (Tech); Bob Wicks, W3HAH (Admin)  
ADDR: Cameron Bailey, KT3A  
PO Box 173  
Mount Wolf, PA 17347-0173  
USA  
SINC: 1993  
COST: US: \$4.00 for the newsletter  
NEWS: "QRP Gazette"  
NUMB: 13  
MEET: Monthly, third Monday. Contact KT3A for locations.  
QNET:  
PROJ: SWR Meter  
TEST: Regular field operations as a group.  
AWRD: ---  
COMM: Meetings 98% technical/operational - Admin 2%.  
Serving the needs of local QRP'ers in Central PA.

~~~~~

ABBR:  
FULL: Cleveland QRP Amateur Radio Club  
PRES:  
ADDR: Bruce A. Wright, N8MWL  
P.O. Box 14052  
410 Superior Ave.  
Cleveland, OH 44114-9998  
USA  
SINC: 1993  
COST: ---



NEWS: ---  
NUMB:  
MEET:  
QNET:  
PROJ:  
TEST:  
AWRD:  
COMM: Still alive?

~~~~~

ABBR: CQC  
FULL: Colorado QRP Club  
PRES: Rich High, WOHEP, <WOHEP@aol.com>  
ADDR: Colorado QRP Club <CQC@aol.com>  
14261 E. 4th Ave. #161  
Aurora, CO 80011-8711  
USA  
Tel. 303-344-1220, Fax: 303-344-0741  
SINC: January 1994  
COST: US: \$10.00  
NEWS: "The Low Down", bi-monthly  
NUMB: 109  
MEET: bi-monthly (Jan., Mar., May, July, Sept., Nov.)  
QNET: Local interest in QRP stimulated by weekly Monday night CQC  
QRP Information Net held on linked 2 meter repeaters in  
Denver and Colorado Springs covering Cheyenne, WY to Pueblo,  
CO (200 miles). (8:00 pm, 147.225, 145.160, simplex: 146.445)  
PROJ:  
TEST: Winter QSO Party (Feb.), Summer QSO Party (Aug.)  
AWRD: (coming soon)  
COMM: QRP programs are also given to other area ham clubs.

~~~~~

ABBR:  
FULL: CW Operators QRP Club  
PRES:  
ADDR: Kevin Zietz, VK5AKZ  
41 Tobruk Ave.  
St. Marys, SA 5042  
AUSTRALIA  
SINC:  
COST: VK: A\$10, ZL: A\$12, DX: A\$14  
NEWS: "LO KEY"  
NUMB:

MEET:  
QNET:  
PROJ:  
TEST:  
AWRD:  
COMM:

~~~~~

ABBR:  
FULL: EA QRP Club  
PRES:  
ADDR: Sr. Miguel Molina, EA3EGV  
Avenia Rio de Janeiro 123 2-1  
08016 Barcelona  
SPAIN  
SINC: November 1993  
COST:  
NEWS: "QU-R-PE", in Spanish, quarterly  
NUMB: 50  
MEET:  
QNET:  
PROJ:  
TEST:  
AWRD:  
COMM:

~~~~~

ABBR: G-QRP-C  
FULL: G-QRP Club  
PRES: Rev. George Dobbs, G3RJV <g3rjv@gqrp.demon.co.uk>  
ADDR: The G-QRP Club <g3rjv@gqrp.demon.co.uk>  
Rev. George Dobbs, G3RJV  
St. Aidan's Vicarage  
498 Manchester Road  
Rochdale, Lancs OL11 3HE  
UK  
Tel/fax: 0706 31812 (+44 706 31812)

There are local representatives in

AUSTRIA:  
Johann Auerbaeck, OE6JAD  
Kirschenhofersolg. 120  
A-8241 Dechantskirchen

Tel. 3339-23335

BELGIUM:

Rene Anrijs, ON4KAR  
Fonds des Vaulx 69a  
B-5640 Biesme-Mettet  
Tel. 250-0062335-49

FRANCE:

Jean-Michel Yeromonahos, F50QO  
2, Allee d'Hamadan  
91400 Orsay

GERMANY:

Rudi Dell, DK4UH  
Weinbietstr. 10  
W 67459 Bohl-Iggelheim  
Tel. 06324/64116

NEW ZEALAND:

Mike Sheffield, ZL1ABS  
Albany Highway  
AUCKLAND  
1 R D Albany

THE NETHERLANDS:

Peter, PE1MHO  
Tel. 074 771832  
Postgiro 2730858  
T.N.V. HALPIN, HENGLO

USA:

G-QRP Club  
Mike Kilgore, KG5F  
2046 Ash Hill Rd.  
Carrollton, TX 75007

SINC: 1974

COST: UK: 6 Pounds

abroad 6 Pounds or \$14

At local representatives:

DL: DM 18

F: Frs 60

ON: BEF 350

PA: HFL 21.50

USA: \$ 12

ZL: NZ\$ 15

All cheques must be made payable to "G-QRP-CLUB".

NEWS: "SPRAT" (Small Powered Radio Amateur Transmitter), quarterly,  
abt 40 pages. Bylaws specify that SPRAT shall always contain  
at least 60% technical material.

NUMB: 8.000 (assigned numbers)  
4.500 (currently subscribed to newsletter)

MEET: Mini-Convention in Rochdale (QTH of G3RJV),  
Yeovil QRP and Construction Convention, Summer QRP Party,  
German section: in Koenigswusterhausen in October,  
in Pottenstein in May

QNET:

PROJ: Sudden Receiver

TEST: Winter Sports

AWRD: QRP-WAC, QRP-Master, QRP-Countries, Worked G-QRP Club,  
Two-way QRP, Chelmsley Trophy for 'best log' received during  
the year

COMM: The largest QRP club in the world, by active membership  
numbers! The Club is also a prolific book producer, most of  
which are available from the RSGB.

~~~~~

ABBR:

FULL: Illinois QRP Group

PRES:

ADDR: Vikki Welch, WV9K  
1307H N. Richmond Road  
McHenry, IL 60050-1461  
USA

SINC: 1992

COST: ---

NEWS: ---

NUMB: 22

MEET:

QNET: ---

PROJ:

TEST:

AWRD:

COMM:

~~~~~

ABBR: I QRP

FULL: Italian QRP Club

PRES: ---

ADDR: Contest: Marcello [ik7hin@i7ozv.ipug.ita.eu]  
How to join: Franz [i7ffe@ik7nxq.ipug.ita.eu]

SINC: October 1994  
COST: ---  
NEWS: ---  
NUMB:  
MEET: before june or july 1995 will be a nice qrp meeting in a  
lovely locality of central italy.  
QNET:  
PROJ:  
TEST: QRP Spring Test  
AWRD: I QRP Club Award (IQCA)  
COMM: No president, no secretary, no subscriptions dues.  
If you will contribute to I QRP Club you're welcome.  
Accepted only SAE, IRC, for correspondence.

~~~~~

ABBR:  
FULL: MFJ 90's Radio Club  
PRES:  
ADDR: Joe Falcone, AA8HV, Editor  
3000 Town Center  
Suite 2370  
Southfield Mich 48075  
USA  
SINC: 1993  
COST: None. The editor asks for articles from the users.  
NEWS: "The Nineties", 6 to 10 issues annually.  
Concentrating on the MFJ 90xx series of TRXes.  
NUMB: abt 150  
MEET:  
QNET:  
PROJ:  
TEST:  
AWRD:  
COMM: The MFJ club is not affiliated with the company. It was  
started and is being run by Joe Falcone as a non-profit  
service.

~~~~~

ABBR: MI QRP  
FULL: Michigan QRP Club  
PRES: Lowell D. Corbin, KD8FR  
ADDR: L.T. Switzer, N8CQA  
Michigan QRP Club  
654 Georgia Ave

Marysville, MI 48040  
USA  
SINC: January 19, 1978  
COST: US: \$7 new member, \$5 renewal; DX: \$12 new member, \$10  
renewal  
NEWS: "The Five-Watter" (T5W), abt 20 pages, quarterly, all  
original articles  
NUMB: approx. 1300-1400  
MEET: 1st Sat. each Month 10am Country Jim's Rest. Davison, MI  
QNET: MI-QRP Net, Tuesdays eves 9pm EST & ESDT, 3.535 MHz  
PROJ: ---  
TEST: Michigan QRP Club Contest (MI QRP Test)  
AWRD: Net Check-In Certificate  
COMM: Very cool pins (\$5) and coffee mugs (\$7) available. Shares  
table with G-QRP and ARCI at Dayton. You can start a local  
"chapter" in your neighborhood, details via Buck N8CQA.

~~~~~

ABBR: NE QRP  
FULL: The QRP Club of New England  
PRES:  
ADDR: Jack Frake, NG1G  
PO Box 1153  
Barnard, VT 05031  
USA  
SINC: 1991  
COST: US: \$10 new member, \$7 renewal  
NEWS: "72", quarterly  
NUMB: 210  
MEET:  
QNET:  
PROJ: NE40-40, NE30-40  
TEST: QRP-Afield  
AWRD:  
COMM: The club project: The idea was 40 meters for \$40, and 30  
meters for \$40, hence the names.

~~~~~

ABBR: NorCal QRP  
FULL: The QRP Club of Northern California  
PRES: Doug Hendricks, KI6DS, <dh@deneb.csustan.edu>  
ADDR: Jim Cates, WA6GER  
3241 Eastwood Rd.  
Sacramento, CA 95821

USA  
SINC: June 1993  
COST: Membership is free but subscription to newsletter is not.  
US: \$5; DX: \$15 (airmail)  
NEWS: "QRPP", quarterly (March, June, September, December), SPRAT  
size, abt 72 pages  
NUMB: > 1.000  
MEET:  
QNET: ---  
PROJ: Sierra, NorCal-40(a)  
TEST:  
AWRD:  
COMM: Yearly club projects, monthly meetings, small get togethers.  
Membership numbers are growing really fast!

~~~~~

ABBR: NEIQS  
FULL: NorthEastern Illinois QRP Society  
PRES:  
ADDR: Don Kozlovsky, KE9GG  
28 W 256 Purnell Rd.  
West Chicago, IL 60185  
USA  
SINC: 1991  
COST: ---  
NEWS: "NEIQS Newsletter", quarterly (SASE)  
NUMB: 85  
MEET:  
QNET: NEIQS Net, 0200Z Wednesdays 3.560 MHz  
PROJ:  
TEST:  
AWRD:  
COMM:

~~~~~

ABBR: NWQ, NW QRP  
FULL: The NorthWest QRP Club  
PRES:  
ADDR: Bill Todd, N7MFB  
NW QRP Club  
2418 55th Ave. SW  
Seattle, WA 98116  
USA  
SINC: 1992

COST: US: \$10 new member, no annual dues  
NEWS: "The NWQ Newsletter", bi-monthly  
NUMB: 250  
MEET:  
QNET: NWQRP Net, 0400Z Tuesdays 10.123, 1530Z Saturdays 7.035 MHz  
PROJ:  
TEST: NW QRP Club Contest  
AWRD:  
COMM:

~~~~~

ABBR: NorTex QRP (NQC)  
FULL: NorthTexas QRP Club  
PRES: Chuck Adams, K5FO, <adams@chuck.dallas.sgi.com>  
ADDR:  
SINC:  
COST:  
NEWS:  
NUMB:  
MEET:  
QNET:  
PROJ:  
TEST:  
AWRD:  
COMM:

~~~~~

ABBR: OK QRP  
FULL: OK QRP Club  
PRES: Petr Doudera, OK1CZ  
ADDR: Petr Doudera, OK1CZ  
U 1.baterie 1  
162 00 Praha 6  
CZECH REPUBLIC

There are contacts to a Slovak QRP group:  
QRP rubric  
Roman Vavro  
Latoricka 15  
821 07 Bratislava  
SLOVAKIA

SINC:  
COST: 15 IRC's or \$10, DM 15, 5 GB Pounds. IRC's preferred.



NEWS: "OK QRP INFO" (OQI), quarterly, has English translations for  
most of the text, SPRAT-size, abt 30 pages  
NUMB: 200  
MEET:  
QNET:  
PROJ:  
TEST: Europe for QRP Weekend, CZEBRIT, QRPP Activity Day  
AWRD: Worked OK-QRP Club Award  
COMM: Not to be confused with the Oklahoma QRP club!

~~~~~

ABBR: OK QRP  
FULL: Oklahoma QRP Club  
ADDR: Don Kelly, KA5UOS  
703 West 8th St.  
Edmond, OK 73003  
USA  
SINC: 1988  
COST: --- (No dues - but \$10 donation per year helps to cover  
costs.)  
NEWS: "Oklahoma QRP", quarterly  
NUMB: 40  
MEET:  
QNET: Oklahoma QRP Net, 1430Z Sundays 7.060 MHz  
PROJ:  
TEST:  
AWRD:  
COMM: Not to be confused with the OK QRP Club in the Czech  
Republic! Don Kelly is not the editor of the club newsletter  
any more - he has recently turned that over to somebody else  
(to whom?).

~~~~~

ABBR: SLQS  
FULL: St. Louis QRP Society  
PRES: Andy Becker, W0NVN  
ADDR: c/o Keith Arns, KC0PP  
2832 Penbrooke Lane  
St. Charles, MO 63301  
USA  
SINC: November 1987  
COST: \$12.00  
NEWS: "The Peanut Whistle", published monthly  
NUMB: 40-45

MEET: Third Wednesday of each month, at Florissant Valley Community College

QNET:

PROJ:

TEST: Homebrew Competition

AWRD: Annual Member's Service Award

COMM: Events: Field Day, Fall Outing, Tailgate Sale, Annual Dinner Meeting.

SLQS is a local club. Members wishing to join should live in our immediate metropolitan area and are requested to attend at least one meeting before joining.

~~~~~

ABBR: U-QRP

FULL: U-QRP Club

PRES:

ADDR: P.O. Box 100

Saransk - 31

RUSSIA 430031

SINC:

COST:

NEWS: The newsletter is in Russian.

NUMB:

MEET:

QNET:

PROJ:

TEST:

AWRD:

COMM:

~~~~~

ABBR: WI QRP Club

FULL:

PRES:

ADDR: WI QRP Club

PO Box 111

Brandon, WI 53919-0111

USA

SINC:

COST: Dues voluntary - \$5 to \$10 suggested.

NEWS:

NUMB:

MEET:

QNET:

PROJ:

TEST:

AWRD:

COMM: Is this club still alive? (Probably not - didn't get off the ground ...)

-----  
Defunct clubs and newsletters, ceased activities:  
-----

- o QRP society of the UK (1949-1964?)
- o Pacific Amateur Radio Group (?)
- o "K5FO QRP newsletter" (1994)
- o "The Milliwatt" (1970-1975)

-----  
'Unofficial' groups:  
-----

- o The DRAGONSLAYERS QRP Group

This is mainly a Dutch group of amateurs with guest members from two other countries only. Dick Pascoe, G0BPS, is the only British member. Three Germans are also members being a family, husband, wife and son. There are no membership fees, no magazine, no contests etc, just a group of friends. Membership is by invitation only!

- o Zuni Looper Mountain Expeditionary Force

This is a local gathering of QRP ARCI members in Southern California, who operate Field Day with QRP; the name refers to the particular part of the State or National Park they always operate from (the Zuni Loop area of the park). They are well known and admired for the \*HUGE\* wire antennas they erect.

- o Maryland Milliwatt Club

The club was founded in 1992 by two members. Membership is by invitation only. Mailing Address: Maryland Milliwatt Club, 3052 Fairland Rd, Silver Spring, MD 20904.

- o World QRP Federation (WQF)

The only thing I know is that Gus, G8PG is president. I suppose it's a kind of QRP cover organisation. Anyone can give

more info on this?

---

Acknowledgments:

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I was using the club list maintained by Bill Kelsey, N8ET, as a basis for this list. Much later when perusing the QRP-L archives I discovered that Chuck Adams, K5FO, had already compiled a list which contained clubs that I didn't know about. Additional information came from other contributions to QRP-L and from assorted printed material. Thanks for very helpful contributions and corrections from (sorted by callsign):

|                   |         |                                           |
|-------------------|---------|-------------------------------------------|
| Guenter,          | DL2LBF, | [dl2lbf@db0hro.deu.eu]                    |
| Dick Pascoe,      | G0BPS,  | <dick@kanga.demon.co.uk>                  |
| Chuck Adams,      | K5FO,   | <adams@chuck.dallas.sgi.com>              |
| Cameron Bailey,   | KT3A,   | <C=BAILEY%IS%211EIS@PAMDT.ANG.AF.MIL>     |
| Bill Kelsey,      | N8ET,   | <N8ET@delphi.com>                         |
| David Gauding,    | NF0R,   | <david.gauding@slug.st-louis.mo.us>       |
| Rich High,        | W0HEP,  | <W0HEP@aol.com>                           |
| L.B. Cebik,       | W4RNL,  | <cebik@utkvtx.utk.edu>                    |
| Byron,            | WA8LCZ, | <Byron8LCZ@aol.com>                       |
| Mike Czuhajewski, | WA8MCQ, | <Mike.Czuhajewski@hambbs.wb3ffv.ampr.org> |
| Paul,             | WB8ZJL, | <prvalko@vela.acs.oakland.edu>            |

Special thanks go to one great club that hasn't been mentioned yet, and this file wouldn't be there if it wouldn't exist:

- o The Internet QRP Club (INET QRP)

Members meet constantly on a facility called the QRP-L mailing list. This mailing list is maintained by Majordomo. Send mail to <listserv@netcom.com> with the following commands in the body of the message (the subject is ignored)

To subscribe:           subscribe qrp-l  
To unsubscribe:        unsubscribe qrp-l  
For more information: help

To send a message to the list, mail it to <qrp-l@netcom.com>.

---

Legalize:

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The editor makes no guarantee as to the usefulness of the information provided herein. The editor takes no responsibility for any damages resulting from the information provided in this list. If you are in doubt, please post a question to the QRP-L mailing list or ask your local elmer :-)

-----  
Update information:  
-----

This is what I call a beta version of the QRP Clubs List. I intend to to make this list up to date and as complete as possible. Therefore I need your help.

If you find outdated information or errors in this list, please let me know. If you know of any QRP club that you feel should be in this list, then let me know, too. The same applies if you have ideas on how to improve this list. Since I am not a native speaker, I'd also be grateful for hints on mistakes with grammar or vocabulary.

For the most up-to-date copy of this list, send email to <sz0026@daphne.rrze.uni-erlangen.de> or a packet radio message to [dl8mfq@db0sif.deu.eu]. From version 1.00 onwards this file will be available via a FTP site also (probably SUNSITE.UNC.EDU).

```

                                     \\|//
                                     (^ ^)
+-----o00--(_)--00o----+
| Vy 72 de Richard (DL8MFQ @ DB0SIF.DEU.EU) in Erlangen |
+-----+
alias AA8CP           G-QRP #7417           AGCW-DL #2168
Internet: <sz0026@daphne.rrze.uni-erlangen.de>
```

----- End of The QRP Clubs List -----

From owner-qrp-l@netcom.com Fri Jan 27 15:02:31 1995  
Date: Fri, 27 Jan 95 09:28:25 MST  
From: miker@cc.com (Mike Robinson)  
Message-Id: <9501271628.AA24591@cc.com >  
Subject: Trade

I have a 1.2 GigaByte SCSI 3.5" harddrive I'd like to trade for a Scout 555, noise blanker, microphone, and at least 3 band modules. Hopefully 1 of the modules will be 20 meters.

-----  
7.3 de Michael aa0ub            All computers, software and harddisks, crash.  
miker@cc.com  
-----

From owner-qrp-1@netcom.com   Fri Jan 27 15:32:13 1995  
Date: Fri, 27 Jan 1995 15:20:00 +0000  
From: william.redfearn.cmwdr01@nt.com  
Message-Id: <"26494 Fri Jan 27 09:20:15 1995"@nt.com>  
Subject: Want dead HF rig

Looking for late model HF rig (WARC) with blown finals for a QRP project.  
Especially interested in FT-707, IC-735, TS-530s, FT-101ZD, or any  
TEN-TEC rigs.  
73-Dave.

=====  
Dave Redfearn, SR PC LAN Analyst   Northern Telecom   RTP, NC.  
ph.(919) 992-3925   email: cmwdr01@nt.com     qrl? de N4ELM/qrp

All opinions are my own and do not necessarily reflect the views of  
my employer, co-workers or any other person, real or imaginary.

From owner-qrp-1@netcom.com   Fri Jan 27 21:55:45 1995  
Date: Fri, 27 Jan 1995 16:09:46 -48000  
From: "David D. Meacham" <ddm@datatamers.com>  
Subject: Re: Winding toroids  
Message-Id: <Pine.3.89.9501271658.C2648-0100000@dt1.datatamers.com>

The QRPp issue is Volume I, Number 3, December 1993. 72, Dave, W6EMD

On Thu, 26 Jan 1995 C=BAILEY%IS%211EIS@PAMDT.ANG.AF.MIL wrote:

> The is a great chart used by NorCal which came from a previous edition of the

> ARCI QRP Quarterly. I'm not sure which issue. de KT3A.  
>  
>